

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO

PAUL RATION, NELLIE RATION,
PRISCILLA RATION, and
ETHELEEN MOSES, individually and
as parent and next friend of Tyrell
Moses and Shania Moses,

Plaintiffs,

v.

No. CIV 03-110 BB/ACT

STALLION TRANSPORTATION,
INC., and ADAMCZYK LUCJAN,

Defendants.

COURT'S FINDINGS OF FACT
AND CONCLUSIONS OF LAW
REGARDING PLAINTIFFS' MOTION TO EXCLUDE
TESTIMONY OF WENDELL C. HULL, PH.D.

THIS MATTER came on for an evidentiary hearing on March 5, 2004. The Court adopts the following requested findings of fact and conclusions of law in support of Plaintiffs' *Motion to Exclude Testimony of Wendell C. Hull, Ph.D.* [#71], as to the second impact theory:

Findings of Fact

1. Wendell C. Hull obtained a Bachelor of Science degree in Mechanical Engineering in 1970; a Masters of Science degree in Mechanical Engineering in 1971; and a Ph.D. in Engineering Science in 1975, all from the University of

Toledo. From 1964 to 1970, he was a Project Engineer for American Chain and Cable Company, doing research and development and managing special research projects, including developing new products and production machinery.

- 2. From 1974 until 1978, Dr. Hull was an assistant professor and then became an associate professor from 1978 until 1984 at the New Mexico State University. He served as a forensic and engineering consultant and was a member of the mechanical engineering department. Among the graduate courses he taught was the Theory of Elasticity and the Theory of Plasticity.**
- 3. From 1975 to the present, Dr. Hull has been a forensic consultant and accident reconstructionist.**
- 4. Dr. Hull has qualified as an expert and testified in numerous court cases involving accident reconstruction matters in New Mexico state courts and in United States District Courts in New Mexico, Oklahoma, and Virginia.**
- 5. Dr. Hull is qualified to testify as an expert in accident reconstruction and the analysis of light bulb filaments involved in motor vehicle accidents.**
- 6. Dr. Hull has conducted experiments and tested the response of light bulb filaments in motor vehicle accidents.**
- 7. Eyewitnesses to the accident have provided conflicting evidence as to whether the taillight on Plaintiffs' trailer was lit at the time of the collision.**

8. Pursuant to the request of counsel for Defendants, Dr. Hull conducted an investigation of the accident involving the Ration and Stallion vehicles that occurred on September 9, 2002.
9. As part of the investigation, Dr. Hull inspected, analyzed, and recorded in photographs (Defendants' Exhibit Z-8) and video (Defendants' Exhibit Z-10) the electrical wiring and light bulb evidence removed from the Ration vehicle.
10. Based on Dr. Hull's education, training, experience, investigation, and analysis, Dr. Hull determined that the electrical wiring and lighting system on the Ration vehicle was in a deteriorated condition in which it had experienced wire insulation breakdown from abrasion, separation, poor quality electrical splicing, and temporary electrical taping of connections and wire ends.
11. Dr. Hull concluded that this accident involved three impacts of the vehicles shown in Defendants' Exhibits Z-9.1 and 9.2.
12. Dr. Hull's inspection of the left rear taillight from the trailer revealed that a bulb filament was deformed and that the deformation of the filament was toward the back of the bulb envelope or casing.
13. Dr. Hull concluded that the first collision would have resulted in filament stretch in the opposite direction. He reached the opinion that the deformation observed was consistent with the second collision between the Stallion truck and Ration trailer and not the first collision of these two vehicles. He thus concluded the

taillight was not lit at the time of the first collision but was jolted on by the second collision.

14. The only existing scientific paper that could be cited to support Dr. Hull's theory is entitled "Accident Information for Traffic Accident Reconstruction – The Role of the Automobile Lamp Filament" and states only, "and possibly the direction of impact force can be obtained by careful study of the lamp filament."
15. Dr. Hull obtained a large number of light bulbs and light fixtures of similar make and model as on the Ration trailer. The test setup and condition of the bulbs is documented in Defendants' Exhibits Z-4 and Z-7. The testing is demonstrated in videotapes (Defendants' Exhibits Z-11, Z-12, and Z-13).
16. The Court considered the briefs and exhibits submitted by counsel as well as the testimony of Dr. Hull and Mr. Welch.

Conclusions of Law

1. Scientific knowledge must be grounded in reliable methods and procedures to be admissible. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 590 (1993).
2. Proponents of expert testimony must prove its reliability by a preponderance of the evidence. *Lauzon v. Senco Prods., Inc.*, 270 F.3d 681, 686 (8th Cir. 2001). Defendants failed to meet this burden with regard to the second collision testimony of Dr. Hull.

3. Dr. Hull's proposed conclusion that the taillight came on after the first impact was unreliable based on the fact no other engineer has ever produced similar results and the only publication he could cite merely stated the theory was possible, while Plaintiffs' Exhibit 1 and Mr. Welch totally discounted any scientific foundation for such a thesis. *See Summers v. Missouri Pacific R.R. Sys.*, 132 F.3d 599, 604 (10th Cir. 1997); *United States v. Van Wyk*, 83 F. Supp. 2d 515, 520-3 (D.N.J. 2000), *aff'd*, 262 F.3d 405 (3d Cir. 2001).
4. Dr. Hull theorized the "soft" mounting of Plaintiffs' taillight explained the unique circumstance. Mr. Welch testified several prior tests had been done on "soft"-mounted lights and did not consistently produce the results predicted and produced by Dr. Hull. As a result, it is clear Dr. Hull's theory is not generally accepted in any recognized field of science or engineering. *Summers, supra*.
5. There is no known or potential rate of error in Dr. Hull's proposed theory. *United States v. Van Wyk, supra*.
6. Dr. Hull's conclusions were the result of otherwise valid scientific principles applied in a unique fashion to support a conclusion designed exclusively for the forensic purposes of this case. *Daubert v. Merrell Dow Pharms., Inc.*, 43 F.3d 1311, 1318 (9th Cir. 1995); *Black v. Rhone-Poulenc, Inc.*, 19 F. Supp. 2d 592, 603-4 (S.D. W.Va. 1998).


7. The opinion of Dr. Hull regarding his accident reconstruction and analysis of the light bulb filaments is not the product of recognized, reliable, scientific principles and methods.

ORDER

The motion to exclude Dr. Hull's testimony regarding the taillight being lit as a result of the second collision is **GRANTED** and Dr. Hull will not be permitted to testify that based on his analysis of the light bulb filaments, the taillight was off at the time of the initial impact but came on after that impact.

All tendered findings and conclusions not incorporated herein are deemed **DENIED**.

DATED at Albuquerque this 12th day of March, 2004.



BRUCE D. BLACK
United States District Judge